

Description of the Cheops (Khufu) Pyramid and its structure on Sumerian clay tablets

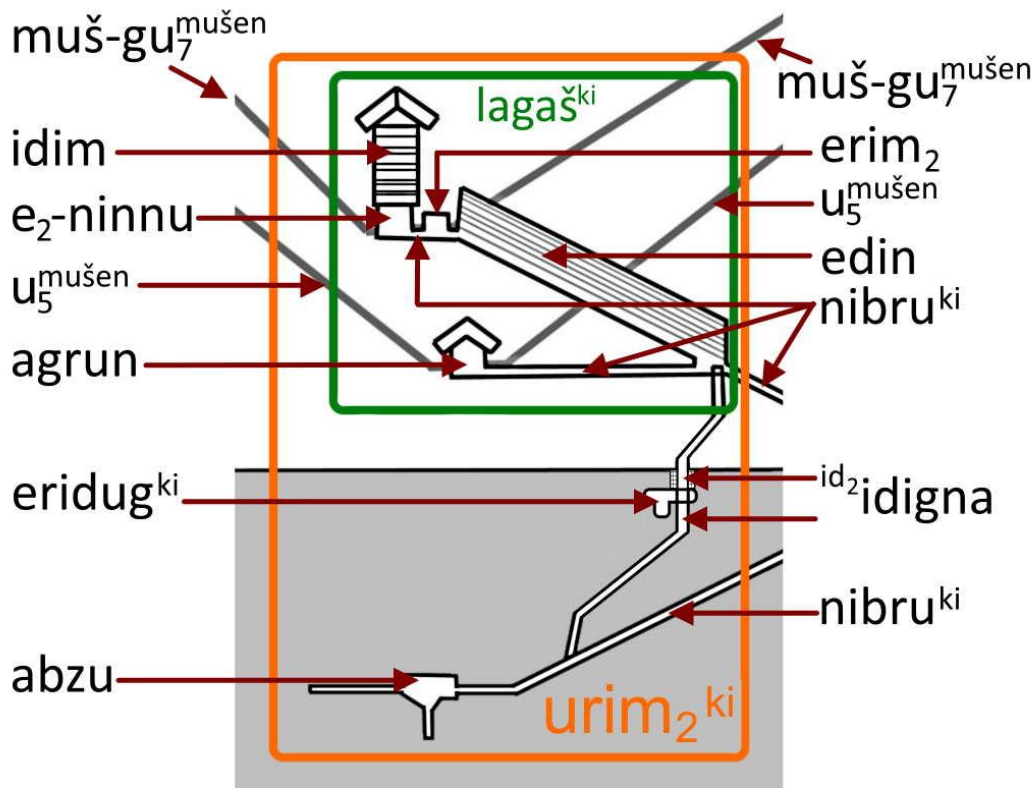


Image from the book *nin-ḥur-saĝ: The Treasure of Mankind* by Yuri Aldanov.

Note: The materials, ideas, and research presented in this article have been taken on the book *nin-ḥur-saĝ: The Treasure of Mankind* by Yuri Aldanov. In the study and interpretation of Sumerian narratives, cuneiform signs, and transliterations were used materials available on the websites of The Pennsylvania Sumerian Dictionary (ePSD)¹ and The Electronic Text Corpus of Sumerian Literature (ETCSL)², a project of the University of Oxford.

¹ <http://psd.museum.upenn.edu>

² <https://etcsl.orinst.ox.ac.uk>

In 1858, the French archaeologist Auguste Mariette, during his excavations of the Isis Temple, discovered the stone tablet decorated with a commemorative inscription. The tablet presented a list of 22 divine statues belonging to the Temple of Isis and further stated that the temple had existed even before the time of Khufu (c. 2580 BC). The tablet was given the name of Inventory Stela and dated from the 26th Dynasty (circa 670 BC). Its text claimed that the dilapidated Sphinx statue was dug up and cleaned of sand by Khafre's father, Pharaoh Cheops (Khufu). The controversial artifact confirms that the Valley Temple and the Sphinx already existed during the reign of Khufu, who ruled more than 30 years before Khafre. It clearly overthrows the theories widely accepted by orthodox Egyptologists regarding the timeline of ancient Egypt. Most scholars tend to dismiss this evidence as late and unreliable. Only Gaston Maspero, the researcher of the old school, spoke out for the reliability of the information given in the Stela.

The credibility of the Inventory Stela is considered by historians and Egyptologists with great caution. The text contains many anachronisms, and its elaboration is weak. The veracity given on the Inventory Stela facts seemed doubtful to Egyptologists; and, therefore, it was declared a fake artifact of the late period.

However, the Stela contains one fact that may bring us to some interesting conclusions. If the described historical events may seem unreliable or falsified, then literary and phraseological turns remain a reliable imprint of those distant times and may hardly be questioned. The message from the Inventory Stela contains an interesting fact that reveals the Pyramid's forgotten past. In one of the Stela's passages, the Great Pyramid (Cheops Pyramid) is referred to as a *Western Mountain* and in another sentence it is called a Pyramid:

*He made for his mother Isis, the Divine Mother, **Mistress of the Western Mountain**, a decree made on a stela, he gave to Her a divine offering, and he built Her a temple of stone, renewing what he had found, namely the Gods in Her place. ... He found the House of Isis, **Mistress of the Pyramid**, by the side of the cavity of the Sphinx, on the northwest side of the House of Osiris, Lord of Rostaw, and he built his Pyramid beside the temple of this Goddess, and he built a Pyramid for the King's Daughter, Henut-sen, beside this temple.*

However, the Inventory Stela is not the only historical artifact that refers to the Great Pyramid as a mountain. A comparison of the Giza pyramids to mountains found in an even earlier historical source, in the book *Euterpe* by the ancient Greek historian Herodotus. In the chapter "An Account of Egypt," Herodotus calls the pyramids the Libyan mountains:

*So some were appointed to draw stones from the stone-quarries in the Arabian mountains to the Nile, and others he ordered to receive the stones after they had been carried over the river in boats, and to draw them to those which are called the **Libyan mountains**;³*

Herodotus' "The Account of Egypt" is remarkable for two reasons. Firstly, it became the historical source that gave birth to the theory of the Pyramids as tombs. Secondly, historian constantly points out that all the information in that chapter was gleaned from the oral stories of the Egyptians and not from historical documents. This fact, on the one hand, reduces the reliability of the "pyramids as tombs" thesis, and, on the other hand, it confirms that huge, man-

³ Herodotus. *An Account of Egypt*. Translated by G. C. Macaulay. The Project Gutenberg EBook of an Account of Egypt (<https://www.gutenberg.org>). 2013.

made pyramidal structures in everyday life of that time were associated with and called mountains.

The Mountain mythologeme is quite widespread in the myths of the peoples of the world. One of the stable mythological motifs is the Mountain as the place of residence of the gods: Olympus in the Greek tradition, Chomolungma and Everest in the tradition of northern Buddhism, the Chinese Jade Mountain (Yushan), the Sumerian mountain with a peak of shiny tin, where the forefather of the gods AN lived, in the Indo-European myths, the thunderers Perun, Perkunas, Zeus were also inhabitants of mountains.

Scholars believe that the Sumerian language is the most ancient language on earth. An Archaic Sumerian language was spoken in ancient Mesopotamia from 3100 BC to 2500 BC, the territory, which is also called the Fertile Crescent. The Fertile Crescent region is one of the places where settled farming first appeared when people took up the cultivation of newly domesticated plants as crops. This area is considered one of the cradles of civilization. The western part of this region includes the floodplain of the Nile and the Giza plateau [Figure 1], on

which famous pyramids are located: the pyramids of Cheops, Khafre, and Menkaure.

Amazingly, the fact remains: the pyramid complex in Giza stands on the territory where the Neolithic revolution took place, which gave people not only a new way of life but also art, writing, and knowledge. It is the region where one of the first writing languages appeared - Sumerian. The writing language gave people the opportunity to save on clay tablets knowledge and the events and pass them from one generation to another. For a certain period of time, the Sumerian language co-existed simultaneously with the Egyptian script. Around 2000 B.C., the

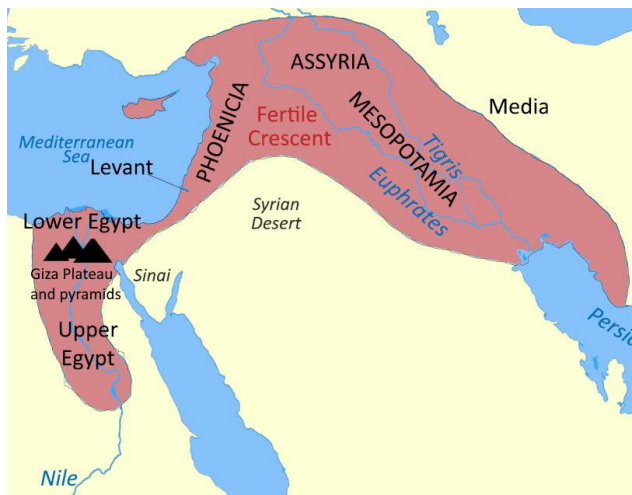


Fig.1. Fertile Crescent and Giza Plateau.

Sumerian language was replaced by Akkadian from the spoken language but continued to be used as a one of religion, administration, and learning until the beginning of our era. However, not a single document of that time civilizations contained a description of the events associated with the planning or construction of such megalithic structures as the pyramids of Giza! Taking into account that the construction was going for around 20 years, and a lot of human and financial resources were involved in construction by the standards not only of that time but even modern, this event could not stay unnoticed. Amazingly, this extraordinary event was not recorded in any historical chronicles. And it's strange. The chances are, we are missing something while reading and interpreting ancient texts.

It was not for nothing that I began the article by drawing the reader's attention to the fact that the pyramids in some period of time, before the word "pyramid" came into use, were associated with mountains, and also that mountains are often mentioned in myths and legends. Mountains are also mentioned in Sumerian myths, and in their mountains always important events take place.

The Sumerian language is remarkable in that its cuneiform pictograms depict the objects they represent. For example, the cuneiform sign SAG



schematically depicts a human head. If we turn it vertically, we would see that the triangle represents the head, two vertical lines depict the neck, the horizontal line is the shoulders, and the line in the triangle symbolizes the mouth. One of the transliterations (*sag*) of this sign means "head; person." The same sign, but with additional details, turns into the cuneiform sign KA



which contains several transliterations with similar meanings, also related to the head: *dug*₄ (to speak, talk, say), *gu*₃ (voice, cry, noise), *inim* (word), *ka* (mouth) and *zu*₂ (tooth). The sign itself schematically depicts a head with an open mouth, hair, neck, and shoulders. Another sign IGI



anatomically depicts an eye: the eye body and optic nerve. This sign contains several transliterations with similar meanings: *igi* (eye; carved eye (for statues), first, earlier; front; face), *zi* (life).

Now it's time to look at the cuneiform sign for the object "mountain." This is the KUR sign:



The sign is made up of three triangles and is similar to the modern "Caution: Radiation!" sign. Its main meaning is determined by the transliteration *kur*: underworld; land, country; mountain(s);



Fig.2. Writing variations of KUR cuneiform sign.

east; easterner; east wind. As noted earlier, Sumerian pictograms schematically represent the subject they mean. Thus, three triangles can represent numerous mountain peaks or ... three triangular pyramids on the Giza plateau, comparable to mountains. For a schematic representation of mountains or a mountain range, one could choose two triangles or more than three. And there are always three of them. Moreover, the writing of this sign has undergone numerous variations, but the number of triangles has remained unchanged (Figure 2).

The leftmost figure (Figure 2.1), the pyramidal clay token, is the forerunner of the cuneiform sign *kur*. It's impossible to confuse the clay token, made in the shape of Great Pyramid, with any other object. The token shows not only the main entrance of the Great Pyramid, located high above the ground, but even the angle of refraction of the faces, measured in the 1880s by Professor Flinders Petrie and photographed in 1940 by the British air force pilot P. Groves (Figure 3).

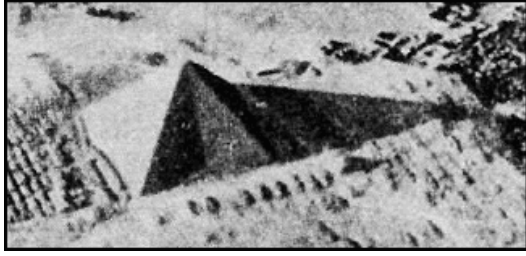


Fig.3. Photograph of the Great Pyramid by P. Groves.

The 4th version of the sign⁴ (Figure 2.4), depicting three squares, leaves no doubt that the KUR sign symbolizes precisely the three pyramids of Giza, and not any mountain formations: all pyramids built with a square base.

Pyramids display a strict geometric shape. Sumerian texts contain a description of a certain geometric figure: za_3-mi_2 (praise; lyre; a geometric figure)⁵.



(ZAG.SAL)

On clay tablets, these two signs, za_3-mi_2 , are quite often used with the sign zu (to know; to learn; type of building material): za_3-mi_2-zu . This sequence of cuneiforms can be interpreted as "a geometric figure made of building material." The clay tablet *Enlil in the E-kur (Enlil A)*⁶ contains the phrase describing some mountain (*kur*) as a geometric figure made of building material (za_3-mi_2-zu):

171.

kur	gal	a-a	^d en-lil ₂	[za_3-mi_2]-zu	maḥ-am ₃
mountain	big	father	Enlil	[geometric figure]-building material	great

The Big Mountain of father Enlil is the greatest geometric figure made of building material.

Significantly, this line is the final one and, therefore, sums up the whole story and highlights its sense. It is evident from its semantic meaning: some big hand-made mountain built in the shape of the geometric figure using building material is a property of father Enlil.

A similar sentence ends the text on the plate *The debate between Winter and Summer*:

*The debate between Winter and Summer*⁷

318.

kur	gal	a-a	^d en-lil ₂	za_3-mi_2
mountain	big	father	Enlil	geometric figure

The Big Mountain is a geometric figure of father Enlil.

The following sentence repeats the structure of the previous two but with the sequence of some interesting signs added (^dereš-ki-gal-la):

⁴ CDLI: Cuneiform Digital Library Initiative (<https://cdli.ucla.edu/tools/SignLists/UT2.pdf>) Plate 34. row 418.

⁵ The Pennsylvania Sumerian Dictionary (<http://psd.museum.upenn.edu/>).

⁶ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.4.05.1&display=Crit&charenc=gcirc#>

⁷ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.5.3.3&display=Crit&charenc=gcirc#>





*Ninġišzida's journey to the nether world*⁸

90.

kug	gal	^d ereš-ki-gal-la	[za ₃ -mi ₂]-zu	dug ₃ -ga-am ₃
mountain	big	Ereškigala	[geometric figure]-building material	good

This sequence of signs is interpreted as the name of a certain Sumerian deity Ereškigala. Let's look at these signs in detail. The first sign *d* (deity), or *an* (heaven, upper), is a star. Since this sign precedes the name, it transliterates as "*d*". In other cases, its transliteration *an* is used.

The sign that can point to the Great Pyramid is the *ki* sign:

			
d[an]	ereš	ki	gal-la
upper	lady	place	big

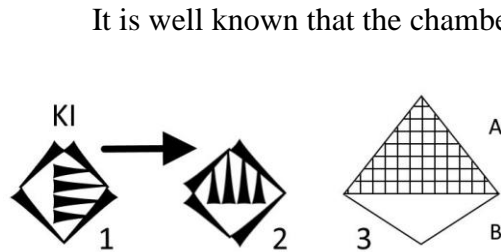


Fig.4. Cuneiform KI and the Great Pyramid.

It is well known that the chambers and passages of the Cheops Pyramid are not only located in its masonry, but they also include the Descending passageway, Subterranean chamber, and the Grotto that lay below ground level in the thickness of solid rock base. The masonry of the pyramid can be schematically represented as a triangle shaded with vertical or horizontal stripes depicting rows of blocks (Figure 4.3.A). The area of subterranean rooms and passages, since it is solid rock, maybe left not shaded (Figure 4.3.B).

The final diagram will look like a cuneiform sign KI rotated by 90 degrees (Figure 4.2).

Following these considerations, we can transliterate the sequence of signs in a new way:

Ninġišzida's journey to the nether world

90.

kur	gal	an	ereš	ki	gal-la	[za ₃ -mi ₂]-zu	dug ₃ -ga-am ₃
mountain	big	upper	lady	place	big	[geometric figure]-building material	good

The Big Mountain, lady the Upper, the big place is the best geometric figure made of building material.

Sumerian clay tablets contain a few more epithets used to refer to the Great Pyramid: “main forever” (*hur-saĝ*), “lady Evermain” (^d*nin-hur-saĝ*), “Enlil's big mountain” (*kur gal* ^d*en-lil₂-le*) and “upper” (*an*). Also, Sumerian texts describe the Great Pyramid as a geometric figure (*za₃-mi₂*) which we have reviewed earlier.

⁸ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.1.7.3&display=Crit&charenc=gcirc#>

The sequence of the signs *hur-saĝ*, ^d*nin-hur-saĝ* is usually interpreted as "mountain" or "mountain range." The phrase consists of the signs *nin* (lady), *hur* (ever, to scratch, draw), and *saĝ* (head, person, capital). The only phrase that could describe both the mountain and the Great Pyramid at the same time is obtained from the two words "ever (again)" and "head," in the Sumerian form "ever-head." The official translation used the words "draw" and "head": "line of heads," i.e. "mountain range." According to the rules of translation from the Sumerian language, the phrase should be translated as "Everhead," "Main forever," or "Lady Evermain":

*OB catalogue from Nibru (N2)*⁹

17.

hur-saĝ	an	ki-bi-da
ever-head	upper	place-open-side/vicinity

The ever-main one is upper part of the KI (located) at the open side (above ground level).

This sentence describes the upper, shaded part (AN) of the KI sign, which represents the Great Pyramid itself that is located in an open area (*bi-da*).

The presented interpretations may bring us to several conclusions. Firstly, the Sumerian narratives describe a big mountain made in the shape of a regular geometric figure. Secondly, some building material was used to pile up this mountain. Thirdly, this mountain belonged to Enlil.

Perhaps the cuneiform tablets tell us about some other mountains, hills, or buildings that played an important role in the daily life of the Sumerians, and all the previously proposed interpretations of their texts are simply erroneous.

The Great Pyramid impresses not only with its size and grandeur but also with a completely mysterious configuration of internal rooms and passages. The inexplicable structure of the Grand Gallery, which shows an inclined profile, and the King's Chamber, the walls of which are lined with granite slabs one and a half meters thick, could not stay unnoticed and left undescribed by the Sumerians if they had known about them. In such a case, the cuneiform tablets must contain a mention or description of these features. And the Sumerians does contain a description of these premises. To begin with, it is worth brushing up on some details of the internal plan of the Great Pyramid.

In 1880 Professor W.M. Flinders Petrie made detailed measurements of all parameters of the Great Pyramid¹⁰. The table below represents the dimensions of the King's Chamber obtained during his works:

Name	Length, m (north-south)	Width, m (east-west)	Height, m
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⁹ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.0.2.01&display=Crit&charenc=gcirc#>

¹⁰ Petrie, W.M. Flinders. The Pyramids and Temples of Gizeh. Histories & Mysteries of man Ltd. London, England. 1990. (1883), 27.

King's chamber	5.24	10.48	5.81
Relieving chambers	5	10	15.29 (5 sections)

Professor Flinders Petrie also noted that the walls of this room had been moved from their original position, leaving gaps between the floor and the wall slabs. Assumably, the initial dimensions of the King's Chamber corresponded to 5 meters in width and 10 meters in length. Thus, the area of that room is 50 square meters. The number of granite slabs laid at the base of the walls is also related to the numbers 5 and 10: the southern wall of the King's Chamber contains 10 blocks; the eastern and western walls contain 5 blocks each. Only 7 blocks are laid in the bottom of the incomplete northern side: it contains the entrance to the room. All blocks are different sizes. The King's Chamber also contains five Relieving Chambers located above its ceiling. Their height is more than three times taller than the height of the chamber itself.

What could be more compelling evidence for a theory than numbers and hard facts? Let's look at some figures and facts from the Sumerian texts. The first fact is based on the physical dimensions of the King's Chamber, which measures 5 meters by 10 meters. The narrative *The Keš temple hymn*¹¹ contains a couple of lines describing the exact size of one of the households/rooms:

45.

e ₂	an-še ₃	10 šar ₂ ^{iku}	ki-še ₃	5 šar ₂ ^{iku}
room	upper-in	10 units of volume	together	5 units of volume

The room in the Upper is 10 šar (blocks) together with 5 šar (blocks).

46.

e ₂	an-še ₃	10 bur ₃ ^{iku}	ki-še ₃	5 bur ₃ ^{iku}
room	upper-in	10 units of length	together	5 units of length

The room in the Upper is 10 bur (meters) together with 5 bur (meters).

As we figured out earlier, the cuneiform sign *an* ("Upper") often used as an epithet for the above-ground part of the Great Pyramid's system, that is, in fact, the Great Pyramid itself. The Pyramid's masonry contains three chambers. If to count them from the bottom up, then the Queen's Chamber will be first, the Grand Gallery - second, and the King's Chamber - the third. The line # 54 of *The Keš temple hymn* describes exactly this circumstance:

*The Keš temple hymn*¹²

54.

e ₂	an-še ₃	3-kam-bi	na-nam
room	upper-in	3-it	order

The room in the Upper is the 3rd in order.

¹¹ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.4.80.2&display=Crit&charenc=gcirc#>

¹² <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.4.80.2&display=Crit&charenc=gcirc#>

This room is identified as the 3rd room.

The size of the King's Chamber is 5 by 10 meters, and therefore its area is 50 square meters. The value 50 also occurs in Sumerian texts and is denoted by the sign *ninnu*, which is used in conjunction with the sign *e₂*: *e₂-ninnu*. The pair *e₂-ninnu* translates as "room 50." Thus, we have on our hands another match with the parameters of the King's Chamber in the Great Pyramid.

The walls of the King's Chamber are lined with granite blocks of the same thickness but different in height and length. They are very precisely fitted to each other and stacked in a determined order. The quote from *The building of Ningirsu's temple (Gudea, cylinders A and B)* narrative describes exactly the same situation with granite wall blocks:

*The building of Ningirsu's temple (Gudea, cylinders A and B)*¹³

1303. (B21.19)

šeg ₁₂	e ₂ -ninnu	nam	dug ₃	he ₂ -tar
mudbrick	room-50	determined order	to be good	be it-to cut

Bricks (blocks) of the fifties (50) room should be well cut and in the determined order.

Wall granite blocks have been cut and stacked like a puzzle, and it is simply impossible to pile up them in any other order and get even walls without gaps. The quote above indicates that for room 50, the blocks (bricks) must be carefully cut and stacked in a specific (determined) order.

The clay tablet scripts intensely use the sign *e₂* (house; temple; household; room). Sometimes *e₂* is used in conjunction with the sign *kur* (mountain): *e₂-kur*. According to the Sumerian language rules, the adjective goes after the noun. Thus, the cuneiform pair *e₂-kur* (room-mountain) should be interpreted as "mountain room." If we take into account that in the past the Great Pyramid was called a mountain, then we may conclude following: the combination of signs *e₂-kur* describes the chambers of the Great Pyramid.

*A praise poem of Išme-Dagan (Išme-Dagan A + V)*¹⁴

275.

e ₂ -kur	za	gin ₃ /kur	^d en-lil ₂	la ₂	ka/dug ₄
room-mountain	4	mountain/land	Enlil	to supervise	to order

Four mountain rooms are the land supervised by Enlil.

276.

e ₂ -ĝa ₂ -ĝiš-šu ₂ -a	zag	^d nin-lil ₂ -la ₂ -ka
Room-place-tree-spread-to do	border/district	Enlil-to supervise-to order

A place where rooms spread like a tree is a district supervised by Enlil.

The last two quotes require some explanation. First, line # 275 does not use the sign AN (upper) to identify the upper part of the Pyramid's system, but the sign KUR (mountain). It tells us that quote talks about the entire system of the Great Pyramid, including underground

¹³ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.2.1.7&display=Crit&charenc=gcirc#>

¹⁴ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.2.5.4.01&display=Crit&charenc=gcirc#>

chambers. In the Sumerian narratives, the sign *e₂* denotes chambers to which passageways approach. Meantime, the Grotto, which is located under the base of the Pyramid, is not a chamber since no passage approaches it. Thus, the Pyramid contains only four rooms: The Subterranean Chamber, the Queen's Chamber, the Grand Gallery, and the King's Chamber. Secondly, the passages in the thickness of the Pyramid diverge like a fan and form a tree-like structure. This comparison describes the system of passages and chambers in line # 276.

An additional structure of five horizontal rows of granite beams weighing almost 90 tons each built above the King's Chamber, laid with a small gap between floors and forming five low height rooms. The purpose of the structure is unclear. Its probable task is to reduce the pressure of limestone blocks on King's Chamber ceiling beams. The layers are assembled of 43 granite beams and weigh over 3600 tons! Likely, this construction is part of the King's Chamber, i.e., room 50. *The building of Ningirsu's temple (Gudea, cylinders A and B)* narrative contains a line connecting the fifty room and some heavy "head":

*The building of Ningirsu's temple (Gudea, cylinders A and B)*¹⁵

724.(A26.22)

e ₂ -ninnu	saĝ-kul-bi	idim
room-50	head-bowl-it	blocked/heavy

The head (top) of room 50 is the blocked (heavy) bowl.

The sign *idim* used in the last sentence exposes two meanings that exactly describe the structure above the King's Chamber - heavy and blocked. Its writing is reminiscent of the tightly packed long granite beams used in its construction:



All five cavities in the original design had no entrance and were inaccessible. In 1765, Nathaniel Davison found an ancient hole leading to the lowest Relieving chamber, and in 1837, Colonel Howard Vyse and Mr. John Shae Perring made their way to the other four cavities. As can be seen from the description of the Relieving chambers, all three characteristics match with those indicated in the sentence:

- the chambers are the "head" of the King's Chamber;
- they are made of heavy material;
- did not have access to the inside, i.e., were blocked.

Two ventilation shafts of the King's Chamber reach out the outer surface of the Great Pyramid. The *Keš temple hymn* narrative compares them to a snake-eating bird: *muš-gu₇^{mušen}* (snake-eating-bird). The mention of the snake is not accidental here. The northern ventilation shaft at its beginning contains several invisible from the outside bends, making the shaft look like a snake.

Other chambers of the Great Pyramid and their details also have been described in cuneiform tablets. The Queen's Chamber is located deep inside the Pyramid, and it is indicated by its

¹⁵ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.2.1.7&display=Crit&charenc=gcirc#>

transliteration *agrun*. The transliteration *agrun* is made up of two pictograms: *e₂* (room) and *zil* (to split, to be distant). Thus, it can be interpreted as a "room separated from others" or "remote room." This interpretation is consistent with the location of the Queen's Chamber in the Pyramid relative to other rooms. This room contains two shafts, but they do not reach the surface of the Pyramid. The shafts are marked with cuneiform signs HU-SI-HU /*mušen* ($u_5^{\text{mušen}}$). One of the meanings of the HU /*pag* pictogram is "to enclose," and it accurately describes the location of these shafts - they are enclosed in masonry. It is indicative that the pair of characters HU.SI is not separable and designated by the transliteration *u₅*.



Fig.5. Cuneiform signs HU.SI.HU reflect the symmetry of the location of the shafts of the Queen's Chamber.

The symmetry of the HU-SI-HU sign sequence reflects the symmetrical arrangement of these two shafts relative to the Queen's Chamber (Figure 5).

The Grand Gallery is the largest and most mysterious room in the Great Pyramid. The importance of this room is reflected in the fact that a special cuneiform sign (*edin*, *eden*) was developed to designate it:

$$\text{edin} \text{ [pictogram] } = (\text{ [pictogram] } + \text{ [pictogram] }) [e_2\text{-dim}].$$

The combined pictogram (*edin*) is composed of two pictograms: *e₂* (room) and *dim* (plant). Inside the *dim* sign placed another sign depicting a ladder or a stairway. The Grand Gallery was built with an inclination, and therefore it may safely be assumed that it once had a staircase-like structure inside. This is indicated by more than 20 strange symmetrically placed grooves in the corners of the walls that, probably, were used to fix its steps.

The smallest structure in the Pyramid is the ante-chamber. Although a passageway approaches it, it is not considered to be a room. The design features of this place indicate that three vertical granite portcullises were installed in it. Pyramid researchers suggest that they were raised and lowered, opening and closing the passage to the King's Chamber, manually using some kind of mechanism made of logs and ropes. In Sumerian clay tablets, this place is designated by the group of signs *erim₂*. The transliteration is composed of two signs: *li₉-ri* ("press" and "to set in place.") The meaning can be interpreted as "set in place by pressure," which may well describe the principle of raising and lowering three massive granite portcullises.

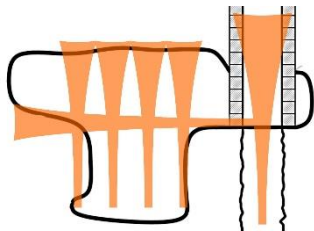


Fig.6. The cuneiform sign *NUN* reflects the profile of the Grotto and the vertical well.

In the rocky foundation of the Cheops Pyramid, two chambers are arranged: The Grotto and the Subterranean Chamber. Also, part of the Descending Passage goes through the bedrock, reaching the Subterranean Chamber.

The Grotto, as noted earlier, is not considered as a room since not a single passage approaches it, and therefore it was not intended for people to be in it. The Grotto is designated by the transliteration *eridug^{ki}*, which is made up of two signs: *zil-ki*. The cuneiform sign *KI*, denoting the system of rooms and passages of the Great Pyramid, is already familiar to us. The *NUN/zil*



sign reflects in its drawing the profile plan of the Grotto and the vertical channel passing next to it: the vertical shaft is represented by a long right line, and the Grotto itself is represented by four short lines (Figure 6).

The channel passing next to the Grotto is indicated by the transliteration *id²idigna*:

id²idigna  [a-engur-maš-gu₂-gar₃-pag].

This vertical channel name possesses the largest number of signs in its writing: *a* [water], *engur* [underground waters], *maš* [twin], *gu₂* [neck], *gar₃* [baked], *pag* [to enclose]. The first two signs, *a-engur*, form the determinative *id₂* [water canal, river]. All of the others describe the canal: twins with a neck enclosed in baked bricks. Part of the vertical channel, from the Grotto to the lower blocks of the Pyramid, is, indeed, lined with small bricks. This part is called the neck. The sign *maš* [twin] indicates that this shaft passes through two zones: through the masonry and the solid rock at the base, which divide it into halves. Another explanation: two halves that perform the common function come from one place, from the Grotto, as twins come from one mother.

In its lower part, the channel connects with Descending passage near the entrance to the Subterranean Chamber. This chamber contains a hole in the floor which, presumably, in ancient times, was supplied with water from underground waters. Thus, channel purpose is supported by this theory.

The lowest room in the Pyramid system is the Subterranean Chamber. This place is marked with signs *AB/ab* (window, opening) and *ZU/zu* (building material.) Thus, the meaning of these two signs interprets as "an opening in the building material" or "open space in the rock." Limestone served as a building material for the Pyramid, and a natural stone mass of the same material became its foundation. This natural mass of limestone was also used as a building material for the *abzu* chamber.

The last structural element of the Great Pyramid's inner plan, which we have not yet looked up, is its passages. Each element of the Pyramid strikes with its individuality. The chambers were built according to an individual plan. Passages are an exception. There are only four of them (Descending, Ascending, Horizontal, and short, connecting the Great Gallery and the King's Chamber), and their dimensions - height (1.20 cm) and width (1.05 cm) - are sustained with great accuracy and are not intended for walking or standing straight. The name of the passages is widely known, but no one associated it with the Great Pyramid. Their name is Nibiru.

Nibiru is a well-known term derived from the Akkadian term *nēbertu*, *nēburu* meaning "a ford, a ford crossing, a crossing place." The semantic meaning of the term is a path from one point to another. The passageways of the Great Pyramid lead from its entrance to each of its apartments.

The Sumerian transliteration of *nibru^{ki}* consists of EN, KID, and KI signs. The KID sign depicts, on the one hand, a grid and, on the other, an array of cubes, which may represent the masonry of the Pyramid, although this meaning is not among its transliterations:



The EN sign (lord, priest, (to be) exalted) semantically describes the leading function. The last KI sign denotes a system of chambers and passages of the Pyramid. Thus, these three signs describe an object leading upward in the masonry of the Pyramid, that is, its passages. A couple of quotes, explaining what *nibru^{ki}* is, are represented below:

*A Hymn to Nibru and Išme-Dagan (Išme-Dagan C)*¹⁶

1.

eš ₃	nibru ^{ki}	eš ₃	abzu-a	ab-dirig	e ₂ -kur	za-gin ₃ -am ₃
eš ₃	nibru ^{ki}	eš ₃	abzu-a	ab	dirig	za kur-am ₃
pavilion passage	nibru	pavilion passage	abzu-water	opening	to glide	room-mountain 4 mountain-self

The nibru passages and the water abzu pavilion are openings, 4 of which lead to the mountain rooms in the mountain itself. (mountain = pyramid)

13.

eš ₃	nibru ^{ki}	iri	ul	me
pavilion, passage	nibru	town, room	distant	where
ḫal-ḫa	za ₃ -mi ₂ -zu		dug ₃ [hi]-ga-am ₃	
to divide	geometric figure-building material, [masonry]		good [to mix]-self	

The nibru passages mix with remote rooms where they separate in the pyramid masonry.

For line #1, the second row of the table shows an alternative transliteration.

As can be understood from the Sumerian quotations in this article, the Sumerian clay tablets contain many detailed descriptions of the Great Pyramid and its internal structure and even those parts unknown until the 18th century. For example, they were familiar with the details of the structure of the Relieving Chambers, the sinuous shape of the northern air shaft, and the existence of the Queen's Chamber shafts. They also keep information about the real purpose of the Giza pyramid complex and the great role they played in the emergence of human civilization. In addition, clay tablets contain the answer to the question of who and how built the Pyramids.

* * *

The Great Pyramid is an iconic image of the Giza Plateau. Meantime, the plateau possesses another worldwide known image, which is also associated with the Giza plateau and the pyramids - the statue of the Sphinx. The Sphinx is performed in the shape of a resting lion with a human head. The Inventory Stela mentions that the Sphinx statue was painted:

The plans of the Image of Hor-em-akhet (that is, the Sphinx) were brought in order to bring to revision the sayings of the disposition of the Image of the Very Redoubtable. He restored the statue all covered in painting, of the Guardian of the Atmosphere, who guides the winds with his gaze.

¹⁶ ETCSL (<https://etcsl.orinst.ox.ac.uk/>). [A Hymn to Nibru and Išme-Dagan \(Išme-Dagan C\)](#) (c.2.5.4.03), 1, 13.



Fig.8. The aratta cuneiform sign.

Even today, pyramid explorers find remains of ancient paint on the Sphinx, which confirms the words of the Inventory Stela. The color of this paint is red.

It is logical to assume that if the Sumerians were aware of the Great Pyramid and its structure, they should have known about the statue of the Sphinx as well, and they should have mentioned it in their narratives. In such a case, they should mention some statue or architectural object performed in the form of a resting lion, and the cuneiform sign should repeat the shape of the lion. Such a cuneiform sign does exist. This is the *aratta* sign (Figure 8). In the *Keš temple hymn* narration, two lines are allotted to describe a reddish lion, which is the representative face of some territory:

*The Keš temple hymn*¹⁷

13.

e ₂	muš ₃	kalam-ma	gud	ḥuš	aratta
household	face	the Land	lion	to be reddish	aratta

The face of the household and the Land is Aratta, a reddish lion.

14.

e ₂	keš ₃ ^{ki}	muš ₃	kalam-ma	gud	ḥuš	aratta
household	Kesh	face	the Land	lion	to be reddish	aratta

The face of the Kesh's household and the Land is Aratta, a reddish lion.

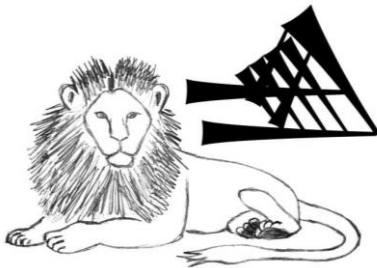


Fig.9. The aratta sign reflects a shape of resting lion.

The cuneiform *aratta* is a composite sign and requires to be reviewed in detail. This composite pictogram is assembled of three different signs: LAM, KUR, and RU (Figure 8). We have already seen the sign KUR meaning mountain/pyramid. One of the values of the RU sign is an architectural feature. The central sign of the composition is the sign LAM [heavy, important, praise, glory]. It follows the shape of a reclining lion with a head and mane and forms a triangle-like figure (Figure 9). All three meanings of the cuneiform signs that make up the sign *aratta* - an architectural feature, a pyramid-mountain, and a reclining lion - can be added up in one phrase: "a statue of a reclining lion near a mountain-

pyramid," which most definitely points to the Sphinx.

¹⁷ <https://etcsl.orinst.ox.ac.uk/cgi-bin/etcsl.cgi?text=c.4.80.2&display=Crit&charenc=gcirc#>